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Response Rates to Mail Questionnaires in an Ethnic Minority Population

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Abstract

Mail questionnaire response rates were investigated in a three-factor design including ethnic group (Spanish surname vs. non-Spanish surname), income level (below vs. above median income) and questionnaire language (English only vs. English with interlinear Spanish translations). Log-linear multiway frequency analysis indicated lower response rates were received from addressees who were Spanish-surnamed, below median income and who had received bilingual questionnaires. Non-significant two-way interactions suggested that Spanish-surname addressees had relatively lower response rates for both income levels and that the translation manipulation lowered response rates equally for Spanish surname and non-Spanish surname addressees. The argument that the Spanish translation questionnaire may have "appeared" longer and hence reduced response rates is refuted on the basis of available literature reviews which indicate that length of questionnaire is not influential in reducing response rates. The problems of increasing response rates from Hispanic consumers were discussed.

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Abstract

Response rates were monitored for 1,037 questionnaires mailed to above and below median income Anglo and Spanish surname consumers in a large Southwestern city. Half of each of these four subgroups received the questionnaire in English alone while half received it in English with Spanish translation. Log-linear multiway frequency analysis indicated that response rates were lower for the Spanish surname, below median income, and Spanish translation subgroups. The Spanish translation lowered the response rates equally for both ethnic groups. A finding that even above median income Spanish surname consumers responded at a relatively low rate is somewhat qualified by questions regarding the accuracy of the a priori income level designation.

Response Rates to Mail Questionnaires in an Ethnic Minority Population

Although numerous studies of the effects of respondent characteristics on survey response rates have been conducted (see Kanuk & Berenson, 1975; Heberlein & Baumgartner, 1978; and Jassens & Pessemier, 1980 for reviews), little empirical research has been reported concerning response rates from minority group members. Returns from members of ethnic minority groups might be expected to be lower than those of the non-minority population at large for a number of reasons. Research indicates that relatively poor response rates can typically be expected from lower occupation and lower income populations (e.g., Heberlein & Baumgartner, 1978) and since minority groups are often low on such socioeconomic variables, they would be expected to be less likely to respond to questionnaires in the mail. Indeed, Gelb (1975) reported lower response rates from one low-income minority group, Blacks in Houston, Texas.

Another factor which might be expected to result in low mail returns is the fact that some U.S. ethnic groups (e.g., Hispanics) speak English only as a second language and this may result in poor ability to understand questionnaire instructions or response alternatives. One practical issue regarding survey techniques for such groups is whether phrasing questionnaries in the native language of the respondent group would improve response frequency. A recent report by Nordstrom and Simis (1982) indicates that translating questionnaires into Spanish does not improve Hispanic response rates.

Finally, low response rates might be expected to occur from ethnic minorities as a function of cultural variables over and above low income

or education levels per se. For example, Longman and Pruden (1972) and Hilger (1973) found that many members of ethnic minorities are "alienated from the marketplace"; such alienation may result in lower predispositions to respond to surveys, even among more affluent, better educated minority members. Also, other sociocultural variables such as fatalism, often attributed to Hispanics (Holtzman, Diez-Guerrero & Swartz, 1975), may contribute to a disinclination to respond.

Method

In the present study three factors, ethnicity, questionnaire language and income were considered systematically to look at their effects on response rate. Samples of minority (Hispanic) and non-minority (Anglo) populations were mailed a brief retail feature preference questionnaire which was precoded by estimated income level and ethnicity of the addressees. Half of the sample received a questionnaire in English only, while the other half received a questionnaire in both English and Spanish. The factors were operationalized as follows.

Ethnicity. The designation of ethnicity was made on the basis of the surname of the addressee. While Hispanic surnames are readily identifiable, non-Hispanic surnames contain a certain number of Blacks. In this case, 1970 census estimates of the ethnic composition of the community sampled, San Antonio, Texas, were 46% Anglo, 44% Mexican American, 6% Black and 4% other. Thus, a small percent of the non-Hispanic sample can be estimated to be of black ethnicity. (Individuals of obvious oriental surname were excluded from the sample). It should be pointed out that the Hispanic population of San Antonio is almost exclusively Mexican American. Although this ethnic group constitutes

58% of Hispanics in the U.S. (Newman, 1978), the present data do not necessarily reflect response tendencies of other Hispanic subgroups, such as Puerto Ricans or Cubans.

Income. The income level of addressees was estimated by Donnelley Marketing of Chicago, who provided the computer-generated mailing list used in the study. The instructions for generating the mailing list specified that addresses were to be sampled proportionately from the census tracts of the city such that half of the addresses in each tract were above the county median income and half below. In the sample so generated, a disproportionately lower number of below median income addresses were Anglos and above median income addresses were Hispanic.

Questionnaire language. The questionnaire was presented either only in English or in English with a Spanish translation. Respondents were to rate 25 supermarket features on 1-7 semantic differential scales (Kelly & Stevenson, 1960). The scales were printed on one side of an 8 1/2 by 14 inch sheet, the reverse side of which contained 7 items of demographic information. An accompanying cover letter identified the study as a university sponsored project.

In the English-Spanish condition, interlinear translation was provided; that is, a Spanish translation followed each semantic differential and demographic item. Translations were made by a local native speaker of Spanish, back-translated (Green & White, 1976), and checked by several other native speakers for clarity and conformity to local idiom. The cover letter was also translated and contained signatures of two researchers, one Hispanic and one Anglo.

In all, 1,037 questionnaires were mailed via first class postage and were stamped "Do Not Forward." Within one month, 339 questionnaires

were returned completed, out of some 893 deliverable letters. This constitutes a response rate of 38% of those delivered or 33% of those mailed.

Results

Main effects. Table 1 shows the number of questionnaires mailed, delivered and returned by respondents in each of the eight cells of the

--- Insert Table 1 About Here ---

study. Lower response rates were found for the ethnic minority group (45% for Anglos, 28% for Mexican Americans), for the below median income group (45% for above median income, 30% for below) and for the English/Spanish translation group (44% for English only, 32% for English/Spanish). A log-linear multi-way frequency analysis indicated these differences to be significant, p's <.01.

Interactions. Among the two-way interactions in the multi-way analysis, of interest is the fact that the language by ethnicity interaction was not significant - translation of the questionnaire into Spanish resulted in lower response rates for both ethnic groups. The most obvious explanation for this effect is that a questionnaire with interlinear translations may appear to be twice as long as the English-only version. However, almost all studies of questionnaire length have found this variable not to reduce response rate (e.g., childers and Ferrell, 1979). Also, in only one of 11 studies which varied length cited by Janssens and Pessemier (1980) did greater length result in a reduction in responses. Another explanation for the effect requires different interpretations for the two ethnic groups. For the Anglos, it is possible that a "backlash" effect occurred whereby negative bias

toward the minority language group in the population resulted in a disinclination to respond. For Hispanics, the lower response rate could have resulted from a number of perceptions on the part of the recipients; for example, they may have perceived a tone of condescension from the investigator or reacted to a perceived lack of authority ascribed to ethnic minority investigators. Some evidence has been reported which supports this latter view. In a study which asked individuals to mail in a questionnaire following a personal interview, Ramirez (1977) reported that Mexican American subjects complied more readily to a request made by an Anglo investigator than to one made by another Mexican-American.

The only two-way interaction to approach signficance in the analysis was that of ethnicity by income ($p<.08$). In this case, the response pattern was such that below median income Anglos responded at a much lower rate than above median income Anglos, while there was little difference among the two Mexican American income groups. This may indicate that Mexican Americans overall do not respond well to questionnaires, regardless of income level. However, certain aspects of the data qualify this interpretation.

Comparison of the actual income levels reported by the respondents with the a priori income disignation indicated that there was considerably more variability in reported income between the above and below median Mexican-Americans income groups than between the two Anglo income groups. This suggests that the selection made by the mailing list company of above and below median income addressees was more successful, in terms of differentiating between high and low income levels, for the Hispanic surname sample than for the Anglo surname sample. Moreover,

the above median income Mexican Americans reported an average income only slightly higher than the below median income Anglos. Whether this resulted from measurement error in the list company's assessment of income levels or differential response rates from above and below median income individuals in the two ethnic populations cannot be determined from the present data. At any rate, caution must be observed in interpreting the two-way interaction of ethnicity and income level simply because of the uncertainty about the a priori income specification.

Finally, the three-way interaction, ethnicity by income by language, was significant ($p<.01$) as depicted by Figure 1. The effect

--- Insert Figure 1 About Here ---

indicated by this interaction is that there was a substantial "backlash" effect from a bilingual questionnaire for the above median income Anglos while no such effect was observed for the below median income Anglos. At the same time, the negative effect of adding the second language to the questionnaire was greater for the below median income Mexican Americans than it was for the above median Mexican Americans. Again, other data investigating responses by Hispanics are consistent with the present findings. Ramirez and Lasater (1977) found that Hispanics who were of low self-esteem (perhaps associated with low income) rated an Anglo investigator more positively than those of high self-esteem while the reverse was true for an Hispanic investigator. In the present case, the below median income Mexican American respondents may have perceived the Spanish version of the questionnaire to be of less importance or authority than did the high income Mexican Americans in the sample. Again, the above interpretations must be qualified by the difficulties in interpretation of the income variable of the study.

Analyses of several other dependent measures revealed significant differences. For example, the number of questionnaires returned as "undeliverable" was greater for below median income consumers (21% vs. 7% for above median income), $p<.001$. Also, below median income respondents omitted more items ($M = 2.12$) compared to above median ($M = 1.07$), $p<.04$, in completing the questionnaire (McDaniel and Rao, 1980).

Discussion

These response rate data confirm the expectation that lower income groups and ethnic minority (Mexican American) consumers are less likely to respond to mail surveys. Furthermore, the data indicate that translations of questionnaire items into Spanish reduces responding for both Mexican Americans and Anglo subgroups alike.

While the nature of the interaction between ethnicity and response rate suggests that Mexican Americans may be lower responders even in the above median income category, this interpretation is qualified by the imprecise nature of the income variable in the study. However, given the relatively high liklihood that Mexican American target populations will be below median income, researchers hoping to reach this group through mail questionnaires must expect low response rates. Among the candidates for variables which may be considered as helpful for increasing Mexican American response rates are the percieved level of authority of the appeal and the degree of respondent self-esteem (Ramirez and Lasater, 1977). Translations of questionnaires into Spanish may have reduced rather than enhanced these variables in the present study.

TABLE 1. Number of Questionnaires Mailed, Delivered, Returned and Response Rate as a Function of Ethnicity, Estimated Income Level and Language of the Questionnaire

Questionnaire Language	Income	Ethnicity	Mailed	Delivered	Returned	Response Rate (%)
		Anglo	199	182	109	60
	Above Median					
		Mexican American	57	55	17	31
English Only						
		Anglo	116	82	27	33
	Below Median					
		Mexican American	148	135	47	35
		Anglo	198	184	72	39
	Above Median					
		Mexican American	56	55	14	25
English/Spanish						
		Anglo	116	76	29	38
	Below Median					
		Mexican American	147	124	24	19
		Total	1,037	893	339	

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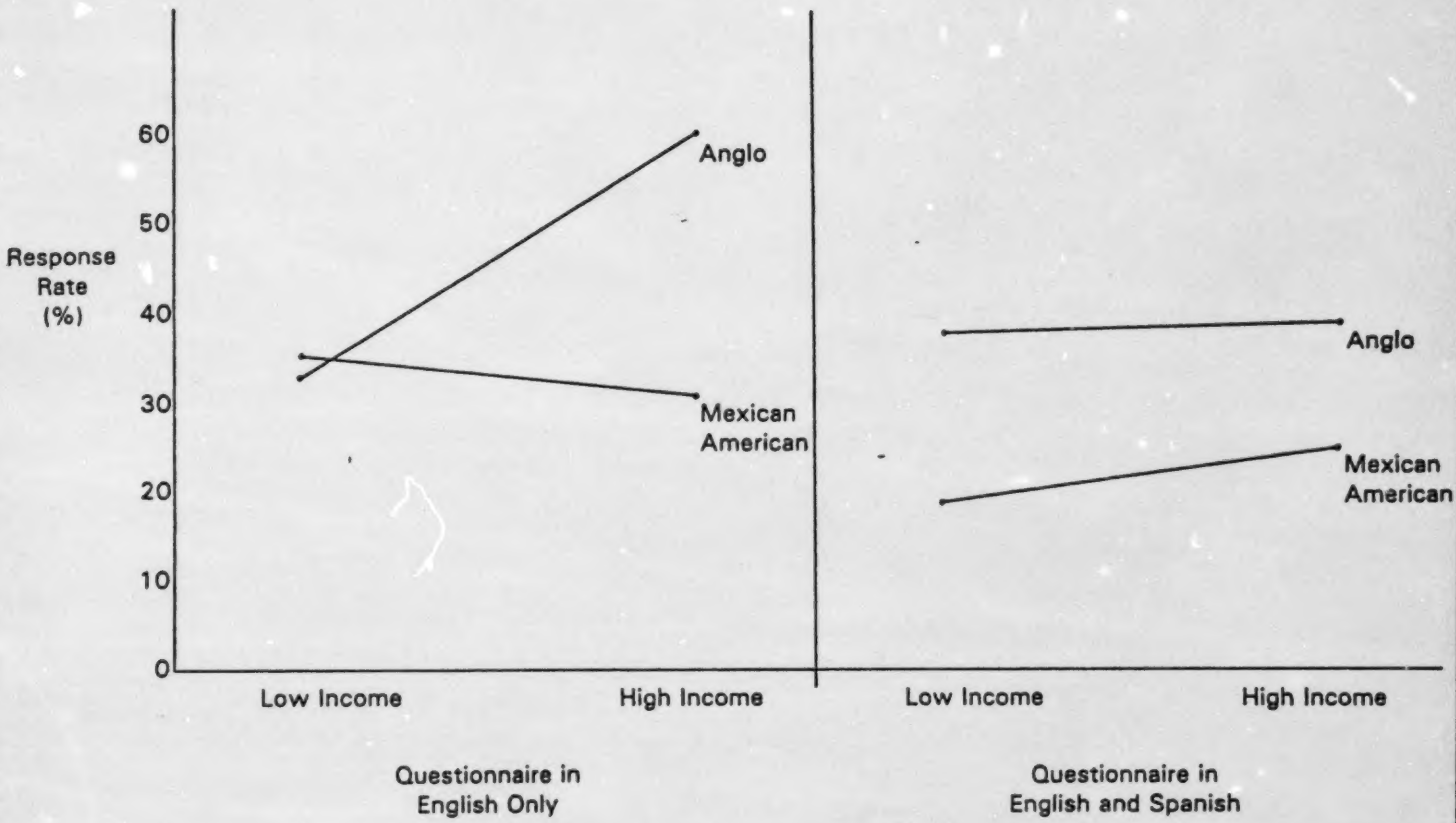

Figure 1. Response Rate as a function of ethnicity, estimated income level and language of the questionnaire.